### **Marine Life Protection Act Initiative**

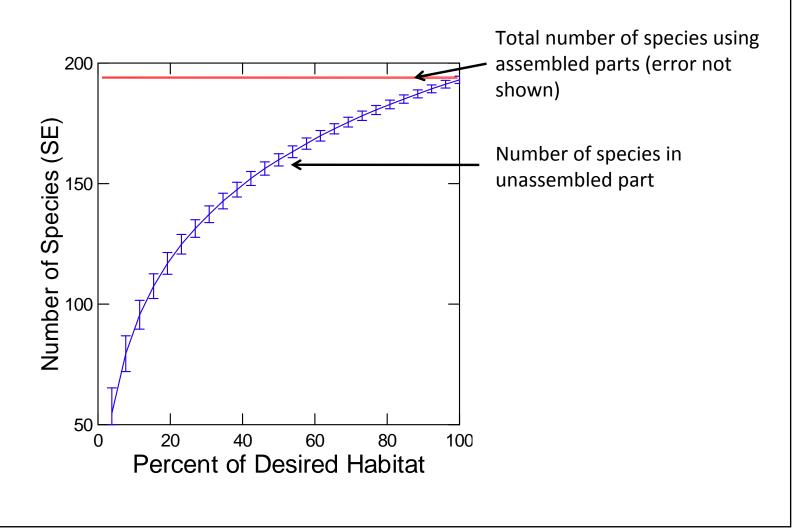


### Single Large Or Several Small Habitat Areas

Dr. Pete Raimondi

Presentation to the MLPA Master Plan Science Advisory Team January 27, 2009 • Los Angeles, CA

# SLOSS – single large or several small using PISCO intertidal data as example

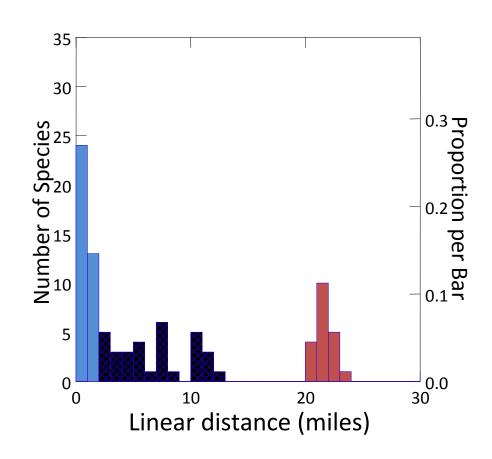


## Species Based Approach (using CRANE rocky reef data for an example)

Frequency distribution of distance required to produce 90% likelihood of a species being present

Many species are common and distances are small

Some are very rare and distances are large



### Single "Large" versus Several "Small" Habitat Areas

#### **Implications:**

- protecting species versus interactions (how many interactions protected within an MPA)
- proximity of pieces within an MPA versus separated between MPAs (movment and interactions)
- contribution of pieces to species population sustainability and yield assessed by models
- contributions to community-wide larval production and dispersal at regional scales (pieces versus "whole")